

Gray County

Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors 6/26/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 21 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Gray County economy.¹

These 21 sectors have a total direct output of approximately **\$579.2 million** and support **1093 jobs** in Gray County. Running the model for all 21 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Gray County Economy					
Contribution Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵
Direct Effect	1093.1	20.80%	\$149,238,286	30.18%	\$579,230,853
Indirect Effect	518.9	9.88%	\$52,281,523	10.57%	\$95,780,407
Induced Effect	390.3	7.43%	\$25,025,834	5.06%	\$49,400,758
Total Effect	2002.2	38.11%	\$226,545,642	45.82%	\$724,412,019

As shown in the above table, agriculture, food, and food processing sectors support **2,002 jobs**, or **38.11%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 21 agriculture, food, and food processing sectors is approximately **\$226.5 million**, or **45.82% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **644 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Gray County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	643.9	\$391,304,178
Support activities for agriculture and forestry	214.2	\$11,735,563
Wholesale trade	195.0	\$43,640,309
Truck transportation	105.0	\$15,615,607
Grain farming	68.8	\$104,205,528
Real estate	55.8	\$8,707,540
Individual and family services	35.2	\$713,600
Landscape and horticultural services	28.5	\$1,763,445
Other financial investment activities	27.9	\$3,834,632
Insurance agencies, brokerages, and related activities	27.9	\$4,018,753

The beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector directly contributes approximately **\$391.3 million** to the Gray County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	643.9	\$391,304,178
Grain farming	68.8	\$104,205,528
Wholesale trade	195.0	\$43,640,309
Animal, except poultry, slaughtering	26.7	\$18,344,281
Truck transportation	105.0	\$15,615,607
Dairy cattle and milk production	26.3	\$12,249,862
Other animal food manufacturing	9.6	\$12,105,025
Support activities for agriculture and forestry	214.2	\$11,735,563
Owner-occupied dwellings	0.0	\$10,877,312
Insurance carriers	23.9	\$9,586,589

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Gray County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	1.6	\$6,190,258.50
Grain farming	68.8	\$104,205,528.26
Vegetable and melon farming	0.5	\$120,012.36
Greenhouse, nursery, and floriculture production	4.7	\$675,122.26
Cotton farming	9.4	\$2,501,234.05
All other crop farming	4.2	\$1,257,764.34
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	643.9	\$391,304,168.70
Dairy cattle and milk production	26.3	\$12,249,861.72
Poultry and egg production	1.8	\$1,963,688.14
Animal production, except cattle and poultry and eggs	14.4	\$5,020,862.10
Commercial logging	4.5	\$119,989.60
Commercial hunting and trapping	4.4	\$86,026.13
Support activities for agriculture and forestry	214.2	\$11,735,563.28
Other animal food manufacturing	9.6	\$12,105,024.34
Animal, except poultry, slaughtering	26.7	\$18,344,282.15
Bread and bakery product, except frozen, manufacturing	2.5	\$282,126.49
Frozen cakes and other pastries manufacturing	0.1	\$19,354.42
Farm machinery and equipment manufacturing	11.5	\$4,433,026.31
Lawn and garden equipment manufacturing	9.7	\$4,272,564.89
Veterinary services	5.7	\$580,941.80
Landscape and horticultural services	28.5	\$1,763,445.26

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Gray County, the retail sector was omitted.